

JRC support to keeping “the lights on”

Generation adequacy objective is to ensure that in the future the generation power plants can supply demand at all times. The JRC has examined Member States, regions (neighboring Member States together) and ENTSO-E pan-European methodologies to highlight the latest developments and current trends

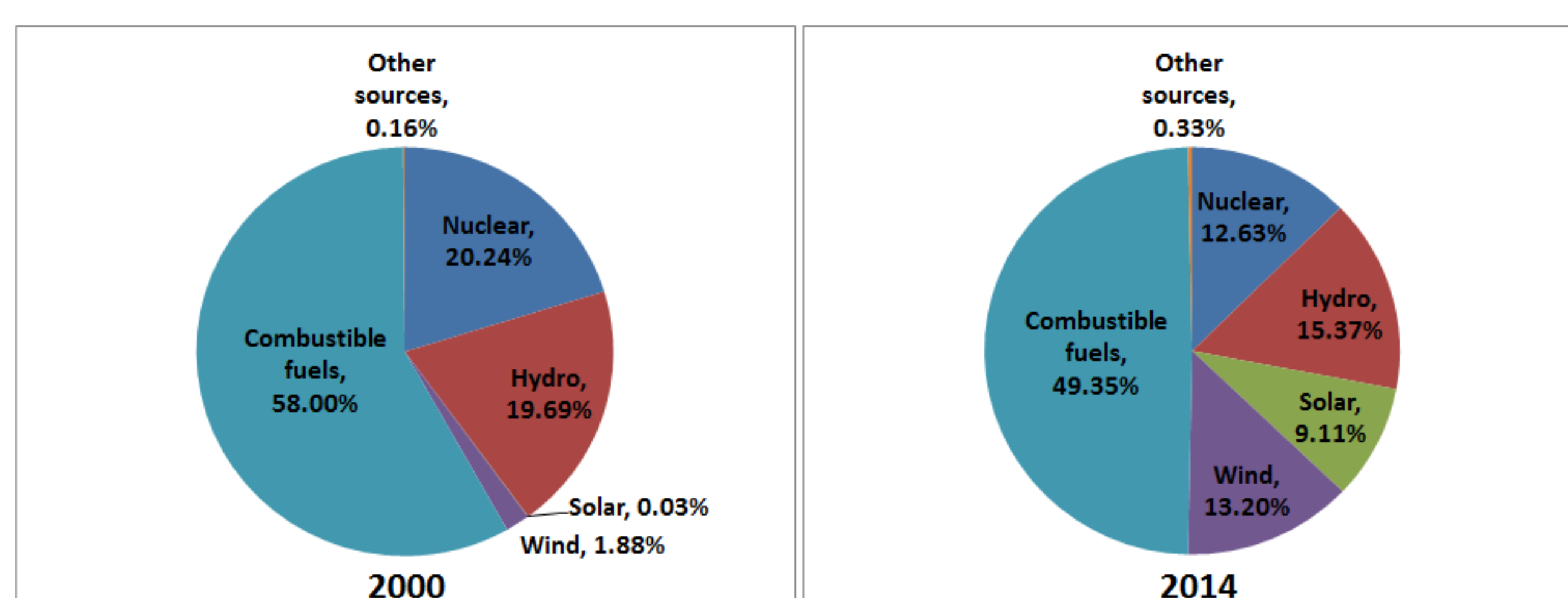
PRESENT

PAST

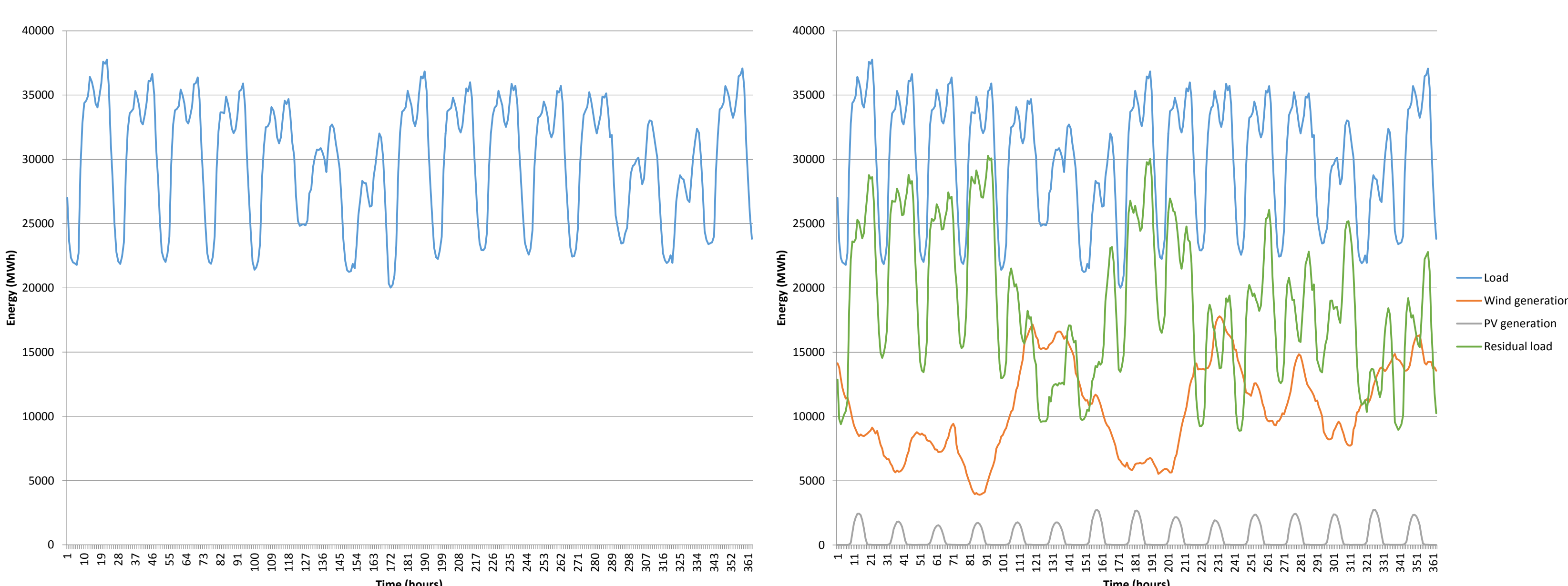


Centralised generation – bulk transmission from High Voltage
Medium Voltage – Low Voltage grids – end customers

Change in the energy mix (installed generation capacity)

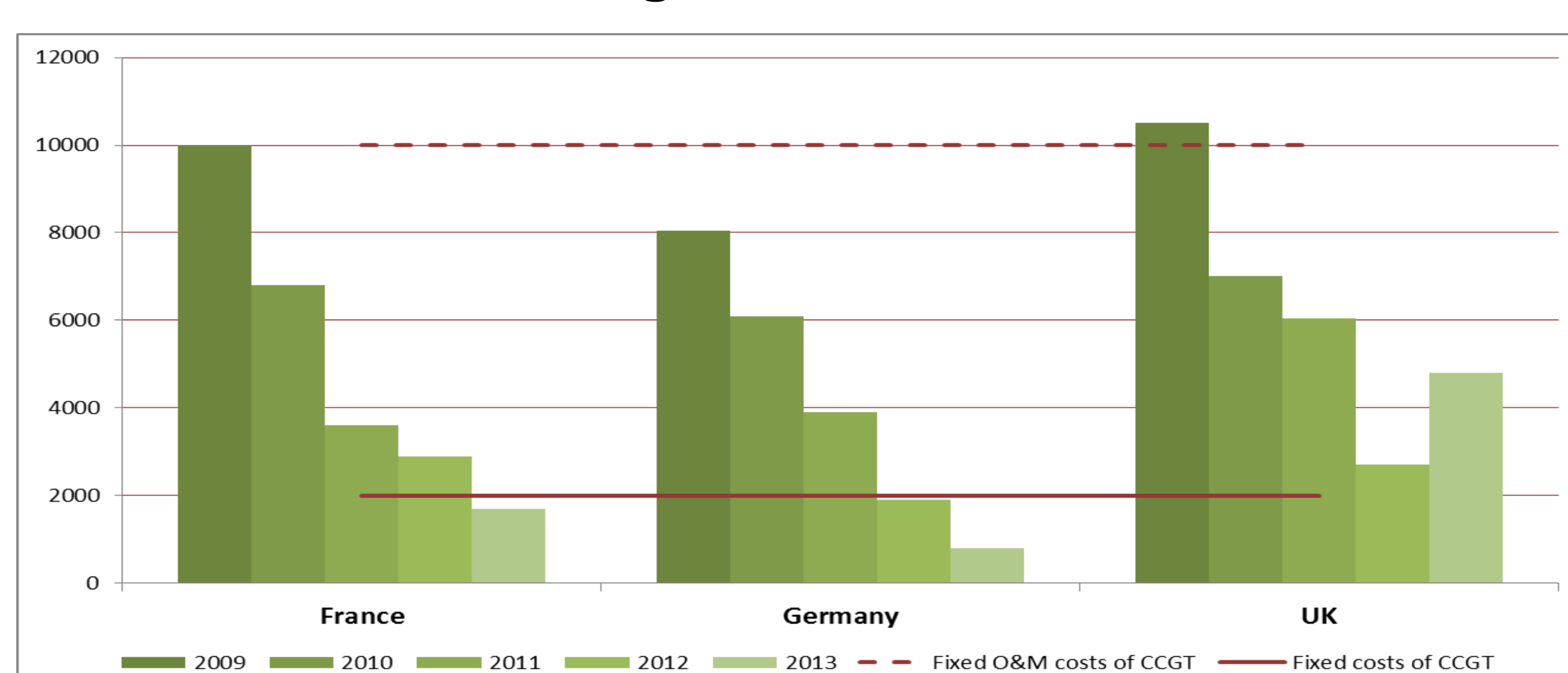


Need to integrate large quantities of variable renewable generation



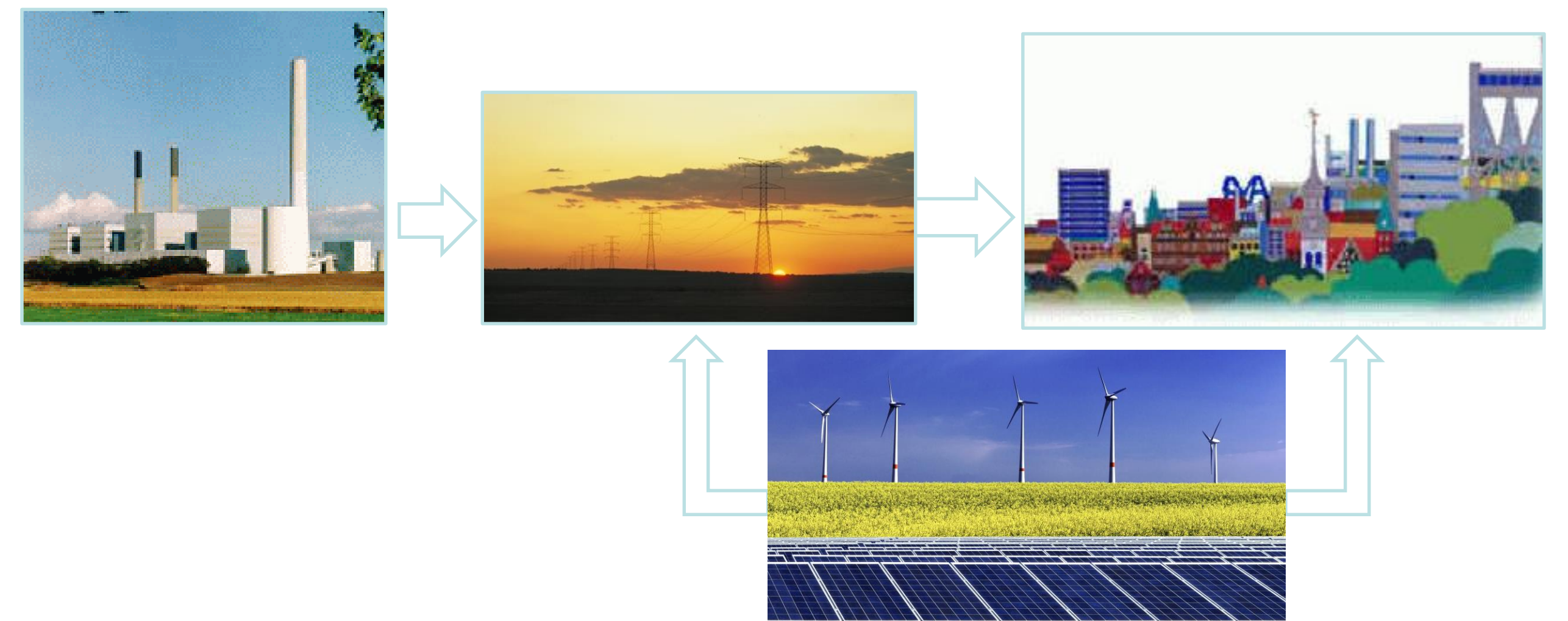
Source: Own analysis for Spain. Data from REE 28/01/2013 to 11/02/2013

Evolution of the economic situation of conventional generators



SOURCE: Capacity Mechanisms, Reigniting Europe's energy markets.

<https://ec.europa.eu/jrc>
ses.jrc.ec.europa.eu



Main conclusions

- Regional and pan-European assessments are used to reveal the situation of an integrated functioning of the European electricity system and market.
- The scope of the national, regional and pan-European assessments shall be established to obtain a minimum harmonization of the regulatory framework and methods.
- Capacity assessments should be complemented with further assessments (e.g. flexibility) as variable renewable energy penetration increases.

New challenges

- Consideration of interconnector capacity
- Demand response
- Harmonization among the Member States.
- Flexibility indicators

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